



Cuyahoga County, Ohio
RFQ/RFP for a Cuyahoga County Microgrid
Cleveland, Ohio

EXHIBIT A
Scope of Services

A. Executive Summary

Cuyahoga County and the City of Cleveland, Ohio, (CC/COC), are interested in developing a 50MW microgrid addition in the near downtown Cleveland area. The microgrid addition has the potential to spur economic development of facilities requiring an increased electrical grid resiliency, and 5/9 (99.999%) reliability. Middough will support CC/COC's ongoing development efforts by preparing RFQ/RFP documentation. The process will develop documents to advertise to potential microgrid developers, (uGD), who will be required to finance, design, build, own, and operate the microgrid, under an operational agreement with Cleveland Public Power, (CPP).

The microgrid RFQ/RFP will be developed with the following specific project goals, objectives, and primary intertie planning and design criteria:

1. 50MW Total Microgrid Design Capacity, with resiliency to outside forces.
2. Primary intertie to CPP via a new 138KV system Ring Bus/50MVA 11.5kV Substation.
3. Primary Microgrid 11.5kV Distribution Substation and Combined Heat & Power (CHP) facility with an expected load capacity of 30MVA located within the initial microgrid geographic boundaries.
4. Secondary Microgrid 11.5kV Distribution Substation located near/at Cleveland Public Power E.11th Street Substation with an expected load capacity of 20MVA.
5. Microgrid 11.5kV Distribution Feeder System
6. Primary Microgrid 11.5kV Generation at (CHP) facility with an expected load capacity of 30MW, (15MW initial, with an additional 15MW future), and uninterrupted fuel supply.
7. 1MW 11.5kV Battery Systems at both Microgrid Substation locations.
8. Microgrid Control System integrated with CPP utility and CCT CHP generation, capable of system protection and control, IEEE1547 compliance for interconnecting distributed resources with electric power systems, load shed, load follow, islanding and return to utility, voltage and frequency control, and intelligent dispatch of CHP electrical and thermal loads.

B. Execution Plan and Scope of Work

1. Middough will develop microgrid study layouts and configurations to provide conceptual technical design criteria and performance requirements of the planned microgrid physical installation. The intent is to provide uGD interested parties a clear representation of the CC/COC envisioned microgrid utility intertie points, primary generation interface, and potential distribution network. The following additional conceptual design documents will be provided to help communicate the design intent to the successful party/ developer:
 - a. Microgrid overview single line diagram with utility and generation intertie points
 - b. Microgrid overview plan depicting utility and generation intertie locations



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- c. Microgrid control system architecture and security requirements with utility and generation intertie points
 - d. Microgrid distribution underground primary duct bank potential locations, size, and profiles
 - e. Microgrid distribution underground secondary duct bank potential locations, size, and profiles
 - f. CPP existing and new substation interface and upgrade requirements and data
2. Middough will coordinate with the Cleveland Foundation sponsored microgrid development and legal team, (see attached organization chart), to identify typical proformas of potential primary microgrid power off-taker/ anchor tenants, and incorporate the necessary contract and legal language obtained from CC/COC. The RFQ/RFP documents will include CC/COC requirements for a microgrid economic development fee, Cleveland Foundation development payback, and utility intertie concession agreement. CC/COC will also provide contract documentation for inclusion into the RFQ/RFP that defines the requirements of the eventual contract with CPP. Middough will not be providing any legal services for this scope of services.
 3. Middough will develop and prepare the formal RFQ/RFP documents describing the required operator supplied microgrid design criteria, scope of supply description, technical specification, and contract addenda. The RFQ/RFP will be performed in a two-stage process as follows:
 - a. *RFQ Phase* – Solicitation and review of a qualification-based request of interest and qualifications.
 - b. *RFP Phase* – Upon selection of qualified corporations or developers, solicitation of a formal cost-based proposal, allowing potential microgrid project developers to convey their recommended microgrid development offering, including cost to design, build, and operate, along with CPP proposed power purchase agreement, generation supply power purchase agreement, and tenant tiered reliability cost structures.
 4. Middough will support the evaluation of both RFQ and RFP responses for technical compliance and prepare technical evaluation documents for the CC/COC's review and input in the RFQ/RFP evaluation process.
 5. Middough will manage the RFQ/RFP process utilizing Newforma project execution software. Newforma provides architects, engineers, contractors, and owners a more effective means of organizing project data, collaboration with team members, and management of construction projects from inception to completion. Project information is organized, accessed and managed by internal and external project team members. Newforma software powers collaboration, information exchange, workflow, tracking and reporting. Utilization of Newforma will maximize the efficiency of the RFQ/RFP process, and allow for potential microgrid developers to more easily respond, have their questions answered via a formal RFI process, and easily access and transmit all RFQ/RFP submittals, documents, and data. As Newforma logs all project interactions, it provides for a central repository of the RFQ/RFP process and provides for transparency as may be required by the project.
 6. Middough can provide CC/COC additional engineering support services to review the detailed microgrid design provided by Others, observe the construction effort, respond to requests for information, and provide coordination with Cleveland Public Power and the project generation suppliers. (These services are not included as part of this proposal at this time.)



C. Project Management

1. Attend Cuyahoga County and the City of Cleveland, Ohio public meetings, and RFQ/RFP pre-bid meetings.
2. Attend project review meetings and provide minutes of meetings for significant items affecting the project. Provide general coordination and periodic progress reporting.

D. Project Controls

Middough Advanced Project Procedures (MAPP) will govern the execution of this Project, providing the necessary and effective checks and balances to deliver quality project solutions. Key aspects of the quality process include: weekly internal project review meetings, discipline review meetings, senior management reviews, interdisciplinary checks, and a cold eyes review of each specification and drawing package.

The project proposed schedule is as follows:

- Phase 1: Project Kick-off and Planning Session - Week 1 thru 2
- Phase 2: Development of Conceptual Design and RFQ/RFP Documents - Week 2 thru Week 12
- Phase 3: Candidate proforma microgrid power off-taker / anchor tenants - Week 2 thru Week 12
- Phase 4: RFQ/RFP Contract and Legal Description Development - Week 6 thru Week 10
- Phase 5: RFQ Phase - Week 9 and 12 (After receipt and review of microgrid operator responses, CC/ COC may notify Middough in writing to terminate any further RFP development services.
- Phase 6: RFP Phase - Week 12 and 24
- Phase 7: Project Development Phase – 2020 thru 2022, (not included at this time)

E. Reference Materials

1. The Cleveland Foundation, TECHNO-ECONOMIC FEASIBILITY ANALYSIS OF A MICROGRID IN DOWNTOWN CLEVELAND, OHIO, prepared August 2018.

F. Deliverables from Client to Middough

1. All reference drawings, reports and documentation pertaining to the project as listed in "Section E- "Reference Materials".

G. Proposed Organizational Chart Attached

1. Note, the support teams noted are available to Middough for consultation purposes and are not contractually sub-contracted to Middough and/or included in the man-hour and proposed project fee.



H. Conflict of Interest Statement

1. Middough is currently retained as Cleveland Public Power's general engineering service provider and has entered into a specific non-disclosure agreement (NDA) with respect to the release and transfer of CPP system information to outside entities. To that end, the services outlined in this proposal and the subsequent CPP related documentation will be submitted to CPP for review and approval prior to public use by CC/COCs microgrid development team.
2. It is understood that Middough agrees to isolate the information received and/or disseminated by the personnel working on the RFQ/RFP execution team while they are engaged in the RFQ/RFP defined scope of work activities. The purpose of this isolation of information is to avoid having RFQ/RFP personnel provide information external to the RFQ/RFP project team that would give any potential microgrid developer any strategic advantage during the RFQ/RFP process. This isolation will be provided by means of operational procedures put in place limiting external information exchange to that approved by the Middough RFQ/RFP project manager and by setting data access rights in the Newforma project execution software, so that no access is permitted to the RFQ/RFP project data by non-project personnel.
3. It is understood that Middough will provide separate staffing and project management resources for any consulting work performed during the RFQ/RFP project execution schedule to potential microgrid developers. The intent of this staffing separation is to endeavor to avoid conflict of interests by Middough staff while providing services to any of our existing and/or new clients. Middough will inform CC/COC in writing should Middough become engaged in consulting activities with a potential microgrid developer before the completion of the RFQ/RFP scope of work and the associated identification of a microgrid developer by CC/COC.
4. It is understood that Middough will be able to pursue and be awarded any portions of microgrid and/or CHP related detailed engineering services resulting from the CC/COC concession agreement with a microgrid developer after the execution of this RFQ/RFP scope of services has been completed.



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**ESTIMATED HOURS FOR PROFESSIONAL ENGINEERING SERVICES,
DRAWINGS AND TASKS**

<u>SERVICES/DRAWINGS/TASKS*</u>	<u>HOURS</u>
Phase 1: Project Kick-off and Planning Session	160
Phase 2: Development of Conceptual Design and RFQ/RFP Documents.....	960
Phase 3: Proforma Candidate profiles.....	80
Phase 4: RFQ/RFP Contract and Legal Description Development.....	80
Phase 5: RFQ Phase.....	240
Phase 6: RFP Phase.....	<u>360</u>
Phase 7: Project Development Phase	-
 Project Total	
1,880	

* Includes meetings and coordination with CC & COC